FAUQUIER COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT

THIRD FLOOR - COURT AND OFFICE BUILDING

40 CULPEPER STREET

PLANNING (540) 347-8703

COUNTY ENGINEER COUNTY SOIL SCIENTIST (540) 347-8660

WARRENTON, VIRGINIA 20186 (540) 347-8660 FAX (540) 341-3444

ZONING ADMINISTRATION (540) 347-8789 BUILDING AND ZONING PERMITS (540) 347-8646 (540) 347-8647

> (540) 347-8674 FAX (540) 347-2043

November 6, 2002

Mr. L. J. Evans 7076 Glanamman Way Warrenton, Virginia 20187

Re:

Airlie Estates SWM Facility

Dear Mr. Evans:

The Fauquier County Engineering Division has reviewed the information provided in support of the proposed SWM Facility associated with the Airlie Estates Development project. Based on the information available to date, it does not appear as though the proposed facility will result in long term negative impacts to the existing downstream facilities located in the Warrenton Lakes Subdivision.

The facility, as presently designed, will reduce the frequency and depth of flooding across Route 605 during smaller rainfall events. It does not appear as though the current proposed facility can be replaced by an equivalent facility (or facilities) and be located outside the limits of the existing and/or proposed revision to the FEMA regulatory floodplain.

As previously discussed, final design of the facility will ensure that all current Federal, State, and Local requirements will be met.

As of the date of this letter, I have not received any correspondence from the United States Army Corps of Engineers nor from the Virginia Department of Environmental Quality quantifying any concerns or issues they may have with respect to the location of the proposed facility. This correspondence will most likely confirm the technical classification of the affected stream. This classification, perennial or intermittent, will determine any specific or special design considerations that may apply.

Should you have any questions regarding the information above, please contact me.

Respectfully,

Christer P. Carshult, P.E.

County Engineer

Glanamman Farm

7076 Glanamman Way, Warrenton, VA 20187 (540) 341-4727 Fax (540) 341-4732

- 7

November 7, 2002

Mr. Larry Weeks Supervisor, Scott District Fauquier Board of County Supervisors 40 Culpeper Street Warrenton, VA 20186

Dear Mr. Weeks

Thank you for meeting with Mr. Neill and I last month and sharing your concerns regarding the Airlie Estates pond's potential impacts on the Warrenton Lakes ponds and Route 605.

Per your suggestion, we have met with the County Engineer as well as science, engineering, geotechnical and other experts in the areas of floodplain designation, wetlands delineation (there are none), pond design and construction, soil classification, and hydrogeologic examination. As a result, additional information has been provided to the County Engineer to substantiate that there will be minimal impact from the Airlie Estates pond upon the Warrenton Lakes ponds and Route 605. In fact, in a number of respects the impact is positive (please see Attachment 1 and the attached Pond and Watershed Exhibits).

The County Engineer has reviewed this information and his findings are incorporated as Attachment 2.

Airlie Estates also will provide additional protection for the Warrenton Lakes ponds by establishing a pond maintenance reserve, in addition to standard Homeowners Association pond maintenance provisions, to assure appropriate operation and maintenance of the pond.

Finally, regarding emergency ingress/egress from Airlie Estates, as we discussed, an exit directly to Rt. 29 has been delineated from Airlie Estates in our preliminary plan submission.

I trust you will find this information helpful in your deliberations regarding the Airlie Estates Special Exception Application. I would appreciate the opportunity to meet with you personally to discuss any concerns or questions you may have.

Very truly yours,

L.J. Évans, Jr.

Enclosures

Airlie Estates

<u>Executive Summary - Proposed Wet Pond - Stormwater</u> Management/Best Management (SWM/BMP) Facility

1. Water Quantity - Drought Effects

The proposed Airlie Estates pond will have an approximate surface area of .9 acres, which is less than one-sixteenth (1/16th) the size of Warrenton Lakes current ponds' surface area. Warrenton Lakes initially had approximately a 9.5 acre surface area pond and added an approximately 6.5 acre surface area in-line pond upstream from its original pond. This additional pond did not cause the original pond to dry up in droughts. Also, there is a less than 1 acre surface area pond downstream, at the radio station, from both Warrenton Lakes in-line ponds. The two Warrenton Lakes upstream in-line ponds did not cause the radio station pond to dry up in droughts. It is unlikely that a .9 acre surface area upstream in-line pond would cause the much larger Warrenton Lakes ponds to dry up.

Detailed studies have been prepared and submitted to Fauquier County Staff which substantiate that the impact on the Warrenton Lakes ponds is minimal.

In addition, there is significant water flow into the Warrenton Lakes ponds other than through Airlie Estates. Please see the attached Watershed Exhibit.

2. Flooding Effects

The Airlie Estates pond will be designed to reduce the frequency of flooding events over the Airlie Road. The dam embankment will be designed in coordination with a certified Geotechnical Engineer and will be built in accordance with current standards, including the recently passed County Storm Water Management Ordinance. Periodic monitoring will be done to ensure the integrity of the facility as part of the operation and maintenance program.

3. Water Quality

In addition to providing erosion and sediment control and stormwater detention, the proposed facility will be designed to remove dissolved pollutants through biological and chemical mechanisms in accordance with the <u>Virginia Stormwater Management Handbook</u>, <u>Northern Virginia Best Management Practices Handbook</u> and local requirements. After construction, this will result in a reduction in pollutants and silt entering the Warrenton Lakes' ponds.

4. Alternatives for SWM/BMP

Alternatives to an on-line SWM facility have been reviewed to see if the pond could be moved out of the flood plain. An off-line facility would still lie in the flood plain and would not have many of the benefits of the on-line facility identified above. Additionally, the on-line facility provides aesthetic enhancements that an off-line dry facility cannot.

5. Corps of Engineers and DEQ Approval

Airlie Estates environmental consultants, McCarthy & Associates, are diligently moving forward to assure that all Federal and State permitting requirements are met. In accordance with Federal regulations, Pre-Construction Notification (PCN) has been sent to the Corps of Engineers (COE) with a copy to DEQ. Submission was made on October 25, 2002 and subsequent discussions have been positive. Airlie Estates will not commence any pond construction until all appropriate Federal and State authorizations have been issued.

6. Maintenance Responsibility

The Fauquier County Subdivision Ordinance requires that all subdivision ponds must be satisfactorily maintained to county standards. The plan for such maintenance is required prior to subdivision plat filing and will be reviewed before subdivision plan approval by Fauquier County. The Airlie Estates' Home Owners Association (HOA) Maintenance Agreement for the SWM/BMP facility will require appropriate maintenance of the pond. In addition, a reserve will be established to assure such maintenance.

7. Erosion and Sediment Control During Construction

A two-phase erosion and sediment control program will be designed as part of the subdivision/final engineering plans in accordance with the <u>Virginia Erosion and Sediment Control Handbook</u>. The first phase provides sediment and erosion controls prior to the general clearing and site grading, while the second phase provides sediment and erosion controls subsequent to the completion of grading and installation of storm sewer.

8. FEMA Processing

A report will be submitted in conjunction with the final construction plan to the Federal Emergency Management Agency (FEMA) in order to receive a Conditional Letter of Map Revision (CLOMR) for the proposed development. The CLOMR serves as written

acknowledgment by FEMA that if the project is built as proposed in the CLOMR submittal, the Flood Insurance Rate Map (FIRM) will be modified to reflect the proposed conditions hydraulic model (the proposed floodplain). Once the project has been completed, an additional report will be submitted to FEMA in order to receive a Letter of Map Revision (LOMR) for the finalized floodplain modifications. The LOMR serves as a formal revision to the FIRM and will be based on actual "as-built" topography.

P:\1835 - Airlie Estates\1835-01-003\Engineering\DESIGN DOCUMENTS\Airlie Estates Executive Summary rev.doc